

Heights of rivers—Continued.

Stations.	Danger-point on range.	Highest water.		Lowest water.		Monthly range.
		Height.	Date.	Height.	Date.	
<i>Sacramento River.</i>		<i>Feet.</i>		<i>Feet.</i>		
Red Bluff, Cal.....	11.9	27	3.5	23, 24	8.4
Sacramento, Cal.....	26.0	1	19.5	26	6.5

* River frozen. † For 19 days. ‡ For 27 days. § For 22 days. ¶ For 17 days.

CLOSING AND OPENING OF NAVIGATION AT ALBANY, N. Y., 1832 TO 1892.

Chart IX, published with this issue of the REVIEW, presents diagrams, prepared by Mr. A. F. Sims, Observer, Weather Bureau, Albany, N. Y., showing the dates of closing and opening of navigation in the Hudson River at Albany, N. Y., the number of days in each winter, and the average number of days by decades of years, and for the period 1832 to 1892, navigation was closed by ice.

ATMOSPHERIC ELECTRICITY.

AURORAS.

Auroras were reported as follows: 1st, Des Moines, Iowa. 5th, Minnesota City, Minn.; Newark, N. J. 6th, Cornish, Me.; Manchester, N. H.; Concord, Mass.; Sandy Lake Dam, Minn. 8th, Surface Creek, Colo.; Indian Stream, Me. 9th, Collegeville, Fergus Falls, and Maple Plain, Minn.; Gallatin, Grand Forks, Lakota, and Wild Rice, N. Dak.; Webster, S. Dak.; Crandon, Wis. 10th, Barron, Wis. 12th, Grand Haven, Mich.; Gallatin, N. Dak.; Barron, Wis. 13th, Stevenson, Conn. 14th, Grundy Center, Iowa; Cincinnati, Ohio. 17th, Chelsea and Woodstock, Vt. 18th, Houlton, Me.; Marquette, Mich.; Alexandria, Bingham Lake, and Fergus Falls, Minn.; Butternut, Medford, Shell Lake, and Valley Junction, Wis.

19th, Belfast, East Machias, and Houlton, Me.; Alpena and Marquette, Mich.; Bingham Lake, Minn.; Havre, Mont.; Napoleon, N. Dak.; Frankfort, Gary, and Webster, S. Dak.; Barron, Wis. 20th, Alexandria, Minn.; Bismarck and Napoleon, N. Dak. 21st, Alta, Iowa; Cornish, Farmington, Gardiner, Houlton, Indian Stream, and Presque Isle, Me.; Concord and Leominster, Mass.; Bingham Lake, Clear Lake, Fergus Falls, and Saint Olaf, Minn.; Glendive and Havre, Mont.; Bethlehem and Hanover, N. H.; Malone, N. Y.; Ashley,

Bismarck, Fort Buford, Grand Rapids, and Wild Rice, N. Dak.; Castlewood, S. Dak.; Chelsea, Northfield, and Hyde Park, Vt.; Grantsburg, Wis. 22d, Grand Rapids, N. Dak.; Castlewood, S. Dak. 24th, Placerville, Cal.; Cresco, Iowa; Savoy, Mass. 28th, Hastain, Mo. 31st, Mitchell, S. Dak.

THUNDERSTORMS.

Description of the more severe thunderstorms reported for the month is given under "Local storms."

Thunderstorms were reported as follows: East of the Rocky Mountains they were reported in the greatest number of states, 9, on the 28th; in 6 on the 19th; in 5 on the 11th; in 4 on the 12th, 18th, and 29th; in 3 on the 1st, 14th, 15th, and 27th; in 2 on the 9th, 17th, and 30th; and in 1 on the 7th, 16th, 24th, 26th, and 31st. No thunderstorms were reported on the 2d to 6th, 8th, 10th, 13th, and 20th to 23d.

East of the Rocky Mountains thunderstorms were reported on the greatest number of dates, 8, in Florida; on 7 in Mississippi; on 6 in Alabama and Georgia; on 5 in Louisiana; on 3 in Illinois, Indiana, Missouri, and Ohio; on 2 in Iowa, Michigan, and South Carolina; and on 1 in Connecticut, Kansas, North Carolina, South Dakota, Texas, and Wisconsin.

West of the Rocky Mountains thunderstorms were reported in California on the 27th, and in Utah on the 27th and 30th.

STATE WEATHER SERVICES.

[Temperature in degrees Fahrenheit; precipitation, including melted snow, in inches and hundredths.]

The following extracts and summaries are republished from reports for January, 1893, of the directors of the various state weather services:

ALABAMA.

Temperature.—Maximum, 79, at Geneva, 2d; minimum, —8, at Newburg, 20th; greatest monthly range, 82, at Florence; least monthly range, 47, at Mobile, Tuscumbia, and Daphne.

Precipitation.—Greatest monthly, 6.98, at Maysville; least monthly, 0.37, at Tuscumbia.

Wind.—Prevailing direction, northwest.—P. H. Mell, Observer, Weather Bureau, Auburn, director.

ARIZONA.

Temperature.—Maximum, 80, at Fort Mohave, 15th, and at Rancho del Pueblo, 8d to 7th; minimum, 4, at Flagstaff, 18th and 20th; greatest monthly range, 59, at San Carlos; least monthly range, 35, at Oracle.

Precipitation.—Greatest monthly, 1.92, at Flagstaff; least monthly, 0.00, at Gila Bend, Palomas, Rancho del Pueblo, and Teviston.

Wind.—Prevailing direction, southwest.—W. Burrows, Observer, Weather Bureau, Tucson, director.

ARKANSAS.

Temperature.—The mean was 2.0 below the normal; maximum, 80, at Camden, 27th; minimum, —13, at Harrison, 19th; greatest monthly range, 83, at Harrison; least monthly range, 47, at Greenville, Miss.

Precipitation.—The average was 3.52 below the normal; greatest monthly, 4.68, at Greenville, Miss.; least monthly, 0.15, at Warm Springs.

Wind.—Prevailing direction, north.—M. F. Locke, Commissioner of Agriculture, Little Rock, director; F. H. Clarke, Local Forecast Official, Weather Bureau, assistant.

CALIFORNIA.

Temperature.—Maximum, 89, at Rialto, 6th; minimum, 9, at Susanville,

31st; greatest monthly range, 59, at San Jacinto; least monthly range, 16, at Williams.

Precipitation.—Greatest monthly, 11.70, at Glendora; least monthly, trace, at Needles.

Wind.—Prevailing direction, south.—J. A. Barwick, Observer, Weather Bureau, Sacramento, director.

COLORADO.

Temperature.—The mean was above the normal; maximum, 81, at Orchard, 5th; minimum, —16, at Breckenridge, 28th, and at Orchard, 31st; greatest monthly range, 97, at Orchard; least monthly range, 86, at Climax.

Precipitation.—Greatest monthly, 4.60, at Climax; least monthly, 0.00, at Orchard and Monte Vista.—J. J. Gilligan, Observer, Weather Bureau, Denver, director.

FLORIDA.

Temperature.—Maximum, 80, at Key West, 28th, and at Archer, 31st; minimum, 20, at Archer, 14th; greatest monthly range, 60, at Archer; least monthly range, 26, at Key West.

Precipitation.—Greatest monthly, 5.41, at Hypoluxo; least monthly, 0.48, at Saint Augustine.

Wind.—Prevailing direction, northwest.—E. R. Demain, Observer, Weather Bureau, Jacksonville, director.

GEORGIA.

The month was noted for the longest continued cold weather and the heaviest snowfall known in years.

Temperature.—Maximum, 78, at Darien, 2d; minimum, —1, at Adairsville, 21st; greatest monthly range, 69, at Adairsville; least monthly range, 47, at Columbus.

Precipitation.—Greatest monthly, 4.75, at Blakely; least monthly, 0.72, at Waynesboro.

Wind.—Prevailing direction, northwest.—*Park Morrill, Local Forecast Official, Weather Bureau, Atlanta, director.*

IDAHO.

Temperature.—Maximum, 54, at Boise Barracks, 1st; minimum, —32, at Bonanza City, 80th; greatest monthly range, 72, at Bonanza City; least monthly range, 42, at Garden Valley.

Precipitation.—Greatest monthly, 2.00, at Garden Valley; least monthly, 0.22, at Boise Barracks.—*J. H. Smith, Observer, Weather Bureau, Idaho Falls, director.*

ILLINOIS.

The month was the coldest January experienced in many years.

Temperature.—The mean was 8.3 below the normal; maximum, 63, at McLeansboro, 28th; minimum, —20, at Oswego and Ottawa, 17th, and at Hennepin, 17th and 18th.

Precipitation.—The average was 1.08 below the normal; greatest monthly, 2.61, at Mount Carmel; least monthly, 0.20, at Muddy Valley.

Wind.—Prevailing direction, northwest.—*John Craig, Observer, Weather Bureau, Springfield, director.*

INDIANA.

The month was the coldest January on record.

Temperature.—The mean was 7.1 below the normal; maximum, 64, at Marengo and New Albany, 28th; minimum, —25, at Lafayette, 15th; greatest monthly range, 78, at Marengo; least monthly range, 59, at Mount Vernon.

Precipitation.—The average was 0.45 below the normal; greatest monthly, 4.40, at Hammond; least monthly, 0.98, at Huntingburg.

Wind.—Prevailing direction, northwest.—*Prof. H. A. Huston, Lafayette, director; C. F. R. Wappenhans, Local Forecast Official, Weather Bureau, assistant.*

IOWA WEATHER AND CROP SERVICE.

Temperature.—The mean was about 7.0 below the normal; maximum, 54, at Glenwood, 4th; minimum, —34, at Decorah, 14th; greatest monthly range, 75, at Charles City; least monthly range, 49, at Grinnell.

Precipitation.—The average was about 0.74 below the normal; greatest monthly, 3.20, at Havelock; least monthly, 0.13, at Larrabee.

Wind.—Prevailing direction, northwest.—*J. R. Sage, Des Moines, director; G. M. Chappel, Local Forecast Official, Weather Bureau, assistant.*

KANSAS.

Temperature.—The mean was 1.6 below the normal; maximum, 76, at Shields, 24th, and at Kiowa, 31st; minimum, —11, at New England Ranch, 31st; greatest monthly range, 81, at New England Ranch; least monthly range, 47, at Fort Riley.

Precipitation.—The average was 0.81 below the normal; greatest monthly, 0.78, at Lebo; least monthly, 0.00, at Cawker City and Kerwin.

Wind.—Prevailing direction, northwest.—*T. B. Jennings, Observer, Weather Bureau, assistant.*

KENTUCKY.

Temperature.—The mean was 7.1 below the normal; maximum, 67, at Hendricks and Springfield, 27th and 28th; minimum, —22, at Hendricks and Louisa, 11th; greatest monthly range, 89, at Hendricks; least monthly range, 57, at Richmond.

Precipitation.—The average was 2.13 below the normal; greatest monthly, 6.37, at Richmond; least monthly, 0.11, at Robard.

Wind.—Prevailing direction, west.—*Frank Burke, Local Forecast Official, Weather Bureau, Louisville, director.*

LOUISIANA.

Temperature.—The mean was slightly below the normal; maximum, 71, at Clinton, 30th and 31st, at Rayne and Lafayette, 29th, and at Donaldsonville and Houma, 31st; minimum, 16, at Davis, 19th; greatest monthly range, 58, at Cameron; least monthly range, 35, at Port Eads.

Precipitation.—The average was 3.14 below the normal; greatest monthly, 4.15, at Amite; least monthly, 1.06, at Shreveport.

Wind.—Prevailing direction, north.—*R. E. Kerkam, Local Forecast Official, Weather Bureau, New Orleans, director.*

MARYLAND.

Temperature.—Maximum, 58, at Cumberland, Edgemont, and Leonardtown, 27th; minimum, —17, at Denton, 18th; greatest monthly range, 78, at Denton; least monthly range, 25, at Cambridge.

Precipitation.—Greatest monthly, 3.50, at Sunnyside; least monthly, 0.72, at Cumberland.

Wind.—Prevailing direction, northwest.—*Dr. William B. Clark, Johns Hopkins University, Baltimore, director; Prof. Milton Whitney, Maryland Agricultural College, secretary and treasurer; C. P. Cronk, Observer, Weather Bureau, in charge.*

MICHIGAN.

Temperature.—The mean was 8.7 below the normal; maximum, 49, at Adrian and Clinton, 28th; minimum, —31, at Paris, 15th.

Precipitation.—The average was 0.37 above the normal; greatest monthly, 5.20, at Berrien Springs (a); least monthly, 0.44, at East Tawas.

Wind.—Prevailing direction, northwest.—*E. A. Evans, Local Forecast Official, Weather Bureau, Detroit, director.*

MINNESOTA.

Temperature.—Maximum, 39, at Camden, 8th and 8th; minimum, —40, at Pokegama Falls, 14th; greatest monthly range, 76, at Saint Vincent; least monthly range, 54, at Grand Meadow and Albert Lea.

Precipitation.—Greatest monthly, 2.63, at Sandy Lake Dam; least monthly, 0.15, at Saint Vincent and Holland.

Wind.—Prevailing direction, northwest.—*J. H. Harmon, Observer, Weather Bureau, Minneapolis, director.*

MISSISSIPPI.

Temperature.—The mean was 2.9 below the normal; maximum, 77, at Enterprise, 31st, and at Vaiden, 25th; minimum, —3, at Batesville, 20th; greatest monthly range, 69, at Louisville; least monthly range, 38, at Ship Island.

Precipitation.—The average was 2.64 below the normal; greatest monthly, 8.02, at Clarksdale; least monthly, 0.80, at Kosciusko.

Wind.—Prevailing direction, north.—*R. J. Hyatt, Local Forecast Official, Weather Bureau, Vicksburg, director.*

MISSOURI.

Temperature.—The mean was 5.2 below the normal; maximum, 66, at Gainesville, 24th, at Grovedale, 28th, and at Neosho, 25th; minimum, —14, at Pickering, 18th; greatest monthly range, 76, at Neosho; least monthly range, 48, at Concordia, Rea, and Stanberry.

Precipitation.—The average was 1.56 below the normal; greatest monthly, 1.75, at Brunswick; least monthly, 0.00, at Louisiana and West Plains.

Wind.—Prevailing direction, northwest.—*Levi Chubbuck, Secretary of State Board of Agriculture, Columbia, director; H. A. McNally, Observer, Weather Bureau, assistant.*

MONTANA.

Temperature.—Maximum, 62, at Fort Custer, 8th; minimum, —45, at Corbin, Fort Logan, and Hogan, 31st; greatest monthly range, 101, at Helena and Fort Custer; least monthly range, 45, at Horr.

Precipitation.—Greatest monthly, 2.60, at Martinsdale; least monthly, 0.31, at Virginia City.

Wind.—Prevailing direction, southwest.—*E. J. Glass, Observer, Weather Bureau, Helena, director.*

NEBRASKA.

Temperature.—Maximum, 82, at Mullen, 3d; minimum, —22, at Hay Springs, 31st; greatest monthly range, 92, at Mullen; least monthly range, 47, at Syracuse.

Precipitation.—Greatest monthly, 0.86, at Creighton; least monthly, 0.00, at several stations.

Wind.—Prevailing direction, northwest.—*Prof. Goodwin D. Swezey, Crete, director; G. A. Loveland, Observer, Weather Bureau, assistant.*

NEVADA.

Temperature.—The mean was 4.2 above the normal; maximum, 65, at Pioche, 5th and 8th, at Sunnyside, 4th and 8th, at Tybo, 7th and 9th, and Palmetto, 3d; minimum, —28, at Elko, 20th; greatest monthly range, 80, at Sunnyside and Halleck; least monthly range, 37, at Hawthorne.

Precipitation.—The average was 0.01 below the normal; greatest monthly, 4.75, at Lewers Ranch; least monthly, 0.12, at Empire Ranch.

Wind.—Prevailing direction, south.—*Prof. Charles W. Friend, Carson City, director; F. A. Carpenter, Observer, Weather Bureau, assistant.*

NEW ENGLAND.

Temperature.—The mean was 6.2 below the normal; maximum, 55, at Fort Kent, Me., 2d; minimum, —39, at Fort Kent, 22d; greatest monthly range, 94, at Fort Kent; least monthly range, 40, at Nantucket.

Precipitation.—The average was 1.24 below the normal; greatest monthly, 4.10, at Taunton (c), Mass.; least monthly, 0.70, at Burlington, Vt.

Wind.—Prevailing direction, northwest.—*J. Warren Smith, Observer, Weather Bureau, Boston, director.*

NEW JERSEY.

The month was the coldest January on record.

Temperature.—The mean was 7.9 below the normal; maximum, 54, at Beverly and Moorestown, 1st, at Lancewood and Mount Holly, 1st and 2d, and at Toms River, 2d; minimum, —21, at Blairstown, 17th, and at River Vale, 18th; greatest monthly range, 74, at River Vale; least monthly range, 51, at Newark.

Precipitation.—The average was 0.86 below the normal; greatest monthly, 4.56, at Boonton; least monthly, 1.87, at Belvidere.

Wind.—Prevailing direction, northwest.—*E. W. McGann, Observer, Weather Bureau, New Brunswick, director.*

NEW MEXICO.

Temperature.—Maximum, 78, at Deming, 7th; minimum, —4, at Halls Peak, 18th, and at Monero, 1st; greatest monthly range, 68, at Halls Peak; least monthly range, 39, at Santa Fe.

Precipitation.—Greatest monthly, 1.73, at Chama; least monthly, 0.00, at Albert, Bloomfield, and Folsom.

Wind.—Prevailing direction, northeast.—*H. B. Hersey, Observer, Weather Bureau, Santa Fe, director.*

NEW YORK.

Temperature.—The mean was 8.1 below the normal; maximum, 55, at Eden Center, 29th; minimum, —28, at Binghamton, 17th; greatest monthly range, 77, at Binghamton; least monthly range, 46, at Fort Niagara.

Precipitation.—The average was 0.58 below the normal; greatest monthly, 8.52, at Cherry Creek; least monthly, 0.55, at Avon.

Wind.—Prevailing direction, northwest.—*Prof. E. A. Fuertes, Dean of the College of Civil Engineering, Cornell University, Ithaca, director; R. M. Hardinge, Observer, Weather Bureau, assistant.*

NORTH CAROLINA.

The month was the coldest January since 1857.

Temperature.—The mean was 10.7 below the normal; maximum, 76, at Rockingham, 25th; minimum, —17, at Bakersville, 20th; greatest monthly range, 80, at Bakersville; least monthly range, 52, at Hatteras.

Precipitation.—The average was 1.63 below the normal; greatest monthly, 5.54, at Columbus; least monthly, 1.34, at Lynn.

Wind.—Prevailing direction, northwest.—*Dr. Herbert B. Battle, Raleigh, director; C. F. von Herrmann, Observer, Weather Bureau, assistant.*

NORTH DAKOTA.

Temperature.—The mean was 1.7 above the normal; maximum, 52, at Medora, 18th; minimum, —48, at Fort Stevenson, 31st, and at Willow City, 29th; greatest monthly range, 89, at Medora; least monthly range, 66, at Milton and Grand Forks.

Precipitation.—The average was 0.34 above the normal; greatest monthly, 2.54, at Fort Yates; least monthly, 0.15, at Saint Vincent, Minn.

Wind.—Prevailing direction, northwest.—*W. H. Fallon, Observer, Weather Bureau, Bismarck, director.*

OKLAHOMA.

Temperature.—Maximum, 79, at Purcell, 28th, and at Fort Supply, 31st; minimum, —7, at Burnett, 19th; greatest monthly range, 81, at Purcell; least monthly range, 60, at Gwenddale.

Precipitation.—Greatest monthly, 2.95, at Fort Sill; least monthly, trace, at Gate City.

Wind.—Prevailing direction, north.—*J. I. Widmeyer, Observer, Weather Bureau, Oklahoma City, director.*

OREGON.

Temperature.—The mean was 1.6 below the normal; maximum, 70, at Newport, 8th; minimum, —17, at Heppner, 31st; greatest monthly range, 84, at Heppner; least monthly range, 29, at Gardiner.

Precipitation.—The average was 3.71 below the normal; greatest monthly, 6.62, at Langlois; least monthly, 0.29, at Fife.

Wind.—Prevailing direction, southwest.—*Hon. H. E. Hayes, Master State Grange, Portland, director; B. S. Pague, Local Forecast Official, Weather Bureau, assistant.*

PENNSYLVANIA.

Temperature.—The mean was 8.2 below the normal; maximum, 57, at Pittsburg, 28th; minimum, —25, at Saegertown, 15th; greatest monthly range, 74, at Saegertown; least monthly range, 49, at Harrisburg.

Precipitation.—The average was 0.58 below the normal; greatest monthly, 5.48, at Wysox; least monthly, 1.65, at Altoona.

Wind.—Prevailing direction, northwest.—*Under direction of the Franklin Institute, Philadelphia; H. L. Ball, Observer, Weather Bureau, assistant.*

SOUTH CAROLINA.

Temperature.—Minimum, 3, at Cheraw, 21st; greatest monthly range, 62, at Cheraw; least monthly range, 47, at Port Royal.

Precipitation.—Greatest monthly, 4.20, at Trial; least monthly, 0.91, at Cheraw.—*B. R. Stuart, Observer, Weather Bureau, Columbia, director.*

SOUTH DAKOTA.

Temperature.—The mean was 2.0 above the normal; maximum, 68, at Rapid City, 3d; minimum, —44, at Ashcroft, 31st; greatest monthly range, 96, at Ashcroft; least monthly range, 59, at Sioux Falls.

Precipitation.—The average was 0.02 below the normal; greatest monthly, 1.52, at Webster; least monthly, trace, at Onida and Vermillion.

Wind.—Prevailing direction, northwest.—*S. W. Glenn, Local Forecast Official, Weather Bureau, Huron, director.*

TENNESSEE WEATHER AND CROP SERVICE.

The month was characterized by low temperature and deficiency in rainfall.

Temperature.—The mean was 5.0 below the normal; maximum, 69, at Chattanooga, 29th; minimum, —20, at Greeneville and Springdale, 16th; greatest monthly range, 84, at Springdale; least monthly range, 55, at Memphis.

Precipitation.—The average was 3.66 below the normal; greatest monthly, 3.28, at Rogersville; least monthly, 0.20, at Waynesboro.

Wind.—Prevailing directions, north and northwest.—*J. B. Marbury, Local Forecast Official, Weather Bureau, Nashville, director.*

TEXAS.

Temperature.—The mean was 0.4 above the normal; maximum, 90, at Fort Ringgold, 15th; minimum, 1, at Camp Pena Colorado, 18th; greatest monthly range, 75, at Fort Hancock; least monthly range, 28, at Orange.

Precipitation.—The average was 0.55 below the normal; greatest monthly, 5.91, at Corpus Christi; least monthly, 0.00, at Luling and Camp Pena Colorado.

Wind.—Prevailing direction, north.—*D. D. Bryan, Galveston, director; I. M. Cline, Local Forecast Official, Weather Bureau, assistant.*

UTAH.

Temperature.—Maximum, 71, at Saint George, 31st; minimum, —23, at Scofield, 20th; greatest monthly range, 79, at Scofield; least monthly range, 41, at Lake Park.

Precipitation.—Greatest monthly, 2.01, at Mount Carmel; least monthly, 0.40, at Loa.

Wind.—Prevailing direction, northwest.—*G. N. Salisbury, Observer, Weather Bureau, Salt Lake City, director.*

VIRGINIA.

Temperature.—Maximum, 77, at Ashland, 27th; minimum, —26, at Big Stone Gap, 15th; greatest monthly range, 93, at Ashland; least monthly range, 58, at Birdsneet.

Precipitation.—Greatest monthly, 4.45, at Birdsneet; least monthly, 10.1, at Staunton.

Wind.—Prevailing direction, northwest.—*Dr. E. A. Craighill, Lynchburg, director; J. N. Ryker, Observer, Weather Bureau, assistant.*

WASHINGTON.

Temperature.—Maximum, 63, at Walla Walla, 4th; minimum, —30, at Waterville, 31st; greatest monthly range, 77, at Waterville; least monthly range, 43, at Aberdeen.

Precipitation.—Greatest monthly, 11.33, at Neah Bay; least monthly, 0.19, at Ellensburg.

Wind.—Prevailing direction, south.—*H. F. Alciatore, Observer, Weather Bureau, Olympia, director.*

WEST VIRGINIA.

Temperature.—Maximum, 71, at Huntington, 30th; minimum, —25, at Spencer, 11th; greatest monthly range, 90, at Spencer; least monthly range, 58, at Martinsburg, Pleasant Hill, and Wheeling.

Precipitation.—Greatest monthly, 7.06, at Spencer; least monthly, 1.10, at New Cumberland.

Wind.—Prevailing direction, west.—*W. W. Dent, Observer, Weather Bureau, Parkersburg, director.*

WISCONSIN.

Temperature.—The mean was about 10 below the normal; maximum, 40, at Delavan and Grantsburg, 23d, and at Sharon, 28th; minimum, —40, at Osceola Mills and Whitehall, 14th; greatest monthly range, 78, at Whitehall; least monthly range, 43, at Lincoln and Oshkosh.

Precipitation.—The average was about normal; greatest monthly, 2.58, at Depere; least monthly, 0.44, at Butternut.

Wind.—Prevailing direction, northwest.—*W. L. Moore, Local Forecast Official, Weather Bureau, Milwaukee, director.*

WYOMING.

Temperature.—Maximum, 63, at Arland, 9th; minimum, —34, at Fort McKinney, 31st; greatest monthly range, 94, at Fort McKinney; least monthly range, 54, at Cheyenne.

Precipitation.—Greatest monthly, 1.82, at Fort Yellowstone; least monthly, trace, at Lander and Laramie.

Wind.—Prevailing direction, northwest.—*E. M. Ravenscraft, Observer, Weather Bureau, Cheyenne, director.*